

SDM College of Engineering and Technology, Dhavalagiri, Dharwad-580002

Department of Mechanical Engineering

STRATEGIC PLAN IMPLEMENTATION REPORT



Audit Report of Strategic Plan for the Year 2022

Date : 20/01/2023

Reference: 5 Year Plan 2022-2026

INTRODUCTION:

The purpose of this document is to record the progress of the Department based on their stated strategic plan for the year - **2022** (starting from 1st January and ending by 31st December).

In charge person indicated against each perspective/ Key areas have participated in the audit process and the records maintained by them are seen thoroughly by the audit team.

AUDIT TEAM:

1. **Chairman:** Principal, SDMCET, Dharwad
2. **Members:**
 - a) Dean Academic Program
 - b) Dean R & D
 - c) IQAC Coordinator — Member Secretary

INSTITUTIONAL VISION AND MISSION:

VISION:

To develop **competent** professionals with **human values**.

MISSION:

- M1.** To have **contextually relevant** Curricula.
- M2.** To promote **effective Teaching Learning** Practices supported by **Modern Educational Tools and Techniques**.
- M3.** To enhance **Research Culture**.
- M4.** To involve the **Industrial Expertise** for connecting Classroom contents to real-life situations.
- M5.** To inculcate **Ethics and soft-skills** leading to overall personality development.

ADDITIONAL FOCUS:

F1: Curriculum relevance- **M1**

F2: Academic/ Exam results- **M1, M2, M4**

F3: Research papers, Sponsored Projects, Root cause analysis for rejected papers and filling gap.- **M3**

F4: Value additions: Teaching, Soft skills, Use of ICT / Presentation, Discussion Groups
(Communication skills)- **M2 & M5**

F5: Community oriented services- **M3 & M5**

F6: Placement.

F7: Accreditation and Ranking: NBA, NAAC and NIRF - **M1 to M5 & Establishment of strong IQAC
to support quality checks and Institutional repository.**

F8: National Educational Policy- NEP-2020 – **M1 to M5.(Experiential Learning)**

CONTACT DETAILS:

1. Dr. I. Sridhar, Professor and Head, Department of Mechanical Engineering, SDM College of Engineering and Technology, Dharwad-580002.

Email: sridhari74@gmail.com

Mobile: 9035924809

2. Dr. K. N. Patil, Faculty I/C- Strategic Plan, Department of Mechanical Engineering, SDM College of Engineering and Technology, Dharwad-580002.

Email: kalmeshnp@gmail.com

Mobile: 9448491882

Year 2022

Focus [1]	Perspective/ Key Areas [2]	Year 2022			
		PLANNING [3]	Observations / Remarks by Auditors		
			Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
F1 / M1 Curriculum Relevance	Re-establishing the relevance of critical thinking in Course outcomes and raising learning levels focusing on Experiential learning of NEP- 2020.	Activity-1: <ul style="list-style-type: none"> • Conduct dept. meeting to discuss on the revision of course outcomes and its mapping to incorporate higher order thinking skills as required by NEP Outcome/Target: <ol style="list-style-type: none"> 1. Revised course outcomes incorporating appropriate critical thinking levels 2. Change in mapping levels of COs with POs 3. Revised PAM In-charge Faculty: Prof. S. R. Daboji	Revision of COs and mapping levels for the following subjects have been undertaken: <ul style="list-style-type: none"> • Materials science • Metrology and Measurements • Foundry and forging Laboratory • M & M laboratory 3. Partial PAM for the above subjects is ready	It is continuous process as NEP syllabus under implementation. Refer- Proceedings of BoS meeting held on 13/08/2022 --	

	<p>Re-establishing the relevance of Program Articulation Matrix-PAM</p>	<p>Activity-1:</p> <ul style="list-style-type: none"> • Revision of mapping of COs with POs • Analysis of PAM for better addressing of all POs. • Action plan based on attainment of POs will implemented. <p>Outcome/Target:</p> <ol style="list-style-type: none"> 1. New program articulation matrix with appropriate mapping levels. 2. No. of subjects addressing each POs <p>In-charge Faculty: Prof. S. R. Daboji Prof. Jayaram Bhat</p>	<ul style="list-style-type: none"> • PAM for 2018 scheme is completed • 2021 scheme syllabus up to 4th sem is completed • PO attainment has been completed 		<p>Actin plan for PO attainment has been intiated</p>
	<p>Conducting internal and External Audits</p>	<p>Activity-1: Conduction of internal and external audit.</p> <p>Outcome/Target: Internal audit: 02 External audit:01</p> <p>In-charge Faculty: Dr. S. S. Honnugar</p>	<p>Internal audit is carried out, the members were 1)Prof.Suneel Joshi, and 2. Prof.V.R.Sheelvant, Dept. of Electrical and electronics, SDMCET Dharwad visited the department and carried out internal audit on 07/09/2022. All course files were checked and comments were reported to respective faculty members for corrections</p> <p>External Audit was carried out on 10/06/2022 in online mode , The auditor was, Prof. G.B.Veereshkumar HoD , Mech. NIT Andhra pradesh the auditor suggested implimemntation of software components in theory subjects wherever possible. Also stressed the incorporation of DIY projects</p>		

Year 2022

Focus [1]	Perspective/ Key Areas [2]	Observations / Remarks by Auditors			
		PLANNING [3]	Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
F2 M1,M2,M4 Exam Results	Bridge Courses For all and specific to Slow learners & Learning Extensions	Activity-1: <ul style="list-style-type: none"> Extra classes for lateral entry students will be taken to make up the syllabus. Mentoring of slow learners. Outcome/Target: <ol style="list-style-type: none"> Improvement in SEE results Support for slow learners In-charge Faculty: Prof. S. I. Akki	-No. of lateral entry students-64 -Average of 20 classes per subject was conducted - Support for slow learners based on IA performance (below 9 mark /20)has been implemented Following are the measures taken for slow learners . Tutorial classes , Assignemnts, group activity, solving SEE QP and it observed from the 3 rd IA result that substantial no of students improved and scored above 25/50 marks.		
	Tutorials for complex courses	Activity-1: Tutorials for analytical subjects recommended by DUGC will be handled and will be shown in the timetable Outcome/Target: <ol style="list-style-type: none"> Improvement in student performance In-charge Faculty: Prof. S. I. Akki	Tutorial classes implemented as per the time table for the following subjects: Fluid Mechanics, Heat Transfer, FEM, Design of Machine Elements-1, Applied Thermodynamics, Engineering thermodynamics Turbo machines , Mechanics of materials , Theory of machines and design of machine elements II, control engg, Mechanical vibrations -- --		
	Strengthening Experiential Learning component	Activity-1: Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Outcome/Target:	PEM implemented for each subject in current semester, the measures are : Industry visit, demonstartions of equipments/instruments related to subject.		

		<p>1. Improved understanding of the subject.</p> <p>In-charge Faculty: Dr. G. M. Gadad</p>	
	<p align="center">Industry Connectivity for Class room</p>	<p>Activity-1</p> <ul style="list-style-type: none"> • Two Invited guest lectures from industrial experts for industrial connectivity • Two Industry based projects will be offered to the students • Organizing industrial tours two per academic year. <p>Outcome/Target:</p> <ul style="list-style-type: none"> • Better exposure to students in line with industrial trends <p>In-charge Faculty: Dr. J. Y. Kudariyavar-for industrial tours Prof. M. K. Marikatti-for CIII related activities Prof. V P Pandarikar- for industrial projects and electives</p>	<p>Three industrial tours and Four guest lectures has been undertaken.</p> <ol style="list-style-type: none"> 1. Auqus Cluster Belagavi – 35 students of VII sem Mechanical engg, Dr.S.S.Honnungar and Dr.K.N.Patil , visted the cluster of industries on 09/12/2022. Aerospace component manufacturing plants, chemical treatment plant , NIRF Toy manufacturing plant total six industries 2. Supa dam /hydel power station – 50 students of IV and VI sem, Mechanical Engg, 13/06/2022, staff; Dr.K.N.Patil and Jayaram Bhat 3. Nirani Sugers Ltd, Mudhol ; 33 students of of VII sem Mechanical engg, staff ; Prof.M.K.Marikatti and Prof.S.G.Hungund, visted on 24/01/2022 <p>Guest Lecture</p> <ol style="list-style-type: none"> 1. Mr.Sanjay Kulkarni, CIMPA UK , on 04/04/2022 topic is "Industry 4." For VII sem A/B around 80 students were present . 2. V.Shekhar, Entrepreneurship opportunities in Engg. On 19/04/22, for VI sem A/B. 90 students were attended 3. Mr. Mahesh Hosur on"Graduate research and education opportunities at Texas A&M University Kingsville" 110 students of civil and mechniacal engg, are attended date 10/09/2022 4. Dr.Dheeraj Patil, HoD, Mech.Engg, IIT Dharwad , topic "Innovation in clean and renewable energy sources " on 10/09/2022.60 students of mechanical engg were attended

Focus [1]	Perspective/ Key Areas [2]	Year 2022			
		PLANNING [3]	Observations / Remarks by Auditors		
			Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
F3 M3 Research	Quality assessment of all research proposals	<p>Activity-1: A dept. committee including an external expert will be formed for assessment of research proposal quality and their relevance.</p> <p>Outcome/Target:</p> <ol style="list-style-type: none"> Improved awareness in writing research proposals <p>In-charge Faculty: Dr. P. S. Shivakumar gouda</p>	Process to be initiated with principal approval by next month		
	<p>IPR: Copyrights and Patents</p> <p>Paper Publications</p> <p>Funded Projects</p>	<p>Activity-1:</p> <ul style="list-style-type: none"> Paper publication in peer reviewed journals Funded projects are to be applied by each eligible faculty members. <p>Outcome/Target:</p> <ol style="list-style-type: none"> Enhancement of college ranking by external agencies. Improvement in infrastructure and research ambience. <p>In-charge Faculty: Dr. V. S. Yaliwal</p>	<p>- 27 peer reviewed papers published in reputed journal with scopus/sci index Q1-11, Q2-10, Q3-01, Q4 -01, non indexed – 04.</p> <p>funded project - 03</p> <ol style="list-style-type: none"> VTU project - Novel Approach for cooling Electronic Devices Using Impingment of Pulsating jet, PI Dr/.Jayaraj Y.K Co Pi, Dr.K.N.Patil Amount sanctioned =10lakh ARDB, Project “Investigation on interlaminar Crack suppression in Fiber and Matrix hybrid Polymer composite for Aerospace structural Components” PI- Dr.P.S.Shivakumargouda and CO PI- Dr.I Sridhar Total amount sanctioned =66.58 lakh VGST- Investigation on thermal Hybrid behavior of Inclined Natural circulation loop , PI Dr/.Jayaraj Y.K CoPi, Prof.K.A.Sateesh, amount sanctioned 15 lakhs <p>Total funding sanctioned is 91.58 lakhs</p>		

Year 2022

Focus	Perspective/ Key Areas	Observations / Remarks by Auditors			
		PLANNING	Outcomes achieved	Reasons for any deviation	Further action plan, if applicable
			[4]	[5]	[6]
F4 M2 & M5 Value additions	Learning for Placement	Activity-1: Four value added training programs facilitated by CIII will be conducted. Outcome/Target: <ol style="list-style-type: none"> Enhanced employability Improvement in engineering skills. In-charge Faculty: Dr. V. S. Kamate	Four training programs on C Programming , MAT lab, MSC Apex and ADAMS and CFD has been conducted C- Programming for non IT students – Mr.Vijay mahantesh, Cleverbit solutions Bengaluru conducted training for 30 hrs, 120 students : dates 09/03/2022 to 20/03/2022 MAT Lab -Dr.Sinddlingsh Navalgund of ECE dept SDMET conducted training on MAT lab for 30 hrs 60 students : dates 30/11/2022 to 09/12/2022 CFD - Mr.Amogh, Alumni of Mech. Dept, SDMCET conducted training on CFD for VII sem Mech.Engg Students for 30 hrs, 120 students of VII sem : dates 03.01.2022 to 19.01.2022 MSC Apex and ADAMS - Mr.Manohar , ALTEM Technologies Bengaluru has Given two day training for V and VII sem. Mechanical Engg during 29 th and 30 th Nov 2022, 110 students were benifitted.		
	Soft Skills	Activity-1: One Soft skill training program will be conducted by CIII centrally. Outcome/Target: <ol style="list-style-type: none"> Improved communication and HR skills In-charge Faculty: Prof. K A Sateesh	APTITUDE training conducted by CIII <ol style="list-style-type: none"> Miss. Ragini , Innovations Unlited Ltd, Bengaluru, 120 of Mechanical Students VI sem, 20 hours training, during 17th to 19th June.2022 Miss. Ragini , Innovations Unlited Ltd, Bengaluru, 120 of Mechanical Students VII sem, 20 hours training, during 24th, to 26th Sept..2022 Miss. Ragini , Innovations Unlited Ltd, Bengaluru, 120 of Mechanical Students V sem, 20 hours training, during 16th th, to 17th Dec..2022 		
	Discussion Group	Activity-1: One group discussion activity will be conducted by the department placement coordinators in consultation with CIII,	<ol style="list-style-type: none"> Praveen Ambannanavar Alumni SDMCET, Topic; “Engineering and Interview Preperation ” 21/10/2022 nearly 100 students of VII sem Mech. are attended. 		

		<p>Outcome/Target:</p> <ol style="list-style-type: none"> 1. Improvement in ability to work in teams 2. Better inter personal communication skills. <p>In-charge Faculty: Dr. V. S. Kamate</p>			
	<p>English Communication Skills</p>	<p>Activity-1: English communication skill training program will be taken up centrally.</p> <p>Outcome/Target:</p> <ol style="list-style-type: none"> 1. One program per year 2. Improved English communication skills. <p>In-charge Faculty: Prof. S. G. Hunugund</p>	<p>To be conducted in consultation with dept of Humanities</p>		
	<p>Use of ICT Information Communication Technology</p>	<p>Activity-1: Faculty and students are trained to use open source/visualization tools.</p> <p>Outcome/Target:</p> <ol style="list-style-type: none"> 1. Better presentation tools for teaching and learning. <p>In-charge Faculty: Prof. S. C. Galveen</p>	--	--	<p>Further training programs on use of ICT will be undertaken in the coming semester.</p>

Year 2022

Focus	Perspective/ Key Areas	PLANNING	Observations / Remarks by Auditors		
			Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
			F5 Community Oriented Services M3 & M5	Awareness Program	Activity-1: Two community oriented activities are planned. Outcome/Target: -Owning social responsibility by the students In-charge Faculty: Prof. M. K. Marikatti
Learning Programs through workshops	Activity-1: Two workshops are planned on socially relevant activities / projects. Outcome/Target: -Students engage in social relevant projects / activities In-charge Faculty: Dr. S. R. Joshi	128 no of students participated in social activities as a part of AICTE activity --activities under taken by Mechanical Students are : <ul style="list-style-type: none"> • Teaching in Govt School , • COVID awareness , • Life for limb • Wild life awareness • Yoga and fitness awareness • Swachh Bharat • Digital and skill India • Blood donation camp • Tourism promotion innovative approaches 			
Technology Transfer Programs	Activity-1: Technology transfer programs are planned. Outcome/Target: 1. Technical solutions for end users of society In-charge Faculty: Dr. B. H. Vadavadagi	--		--	Technology transfer programs are planned from the next semester.

Year 2022

Focus	Perspective/ Key Areas	PLANNING	Observations / Remarks by Auditors		
			Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
			F6 Placement	No. of Offers	<p>Activity-1: Establishing connectivity for core companies through Alumni and TAPS</p> <p>Outcome/Target: 1. Improvement in offers.</p> <p>In-charge Faculty: Prof. A H Desai</p>
No. of students getting Placed	<p>Activity-1: Conduction of Aptitude training programs in consultation with CIII</p> <p>Outcome/Target: 1. Enhancement of eligible students for placements</p> <p>In-charge Faculty: Prof. A V Javali</p>	<p>-Two programme completed by CIII</p>			
pay packages being offered	<p>Activity-1: Inviting reputed organizations to the campus for placement drives through TAPS</p>	<p>-This comes under perview of TAPS, which has taken up the initiative and placement activites are ongoing</p>			

		<p>Outcome/Target: 1. Improved pay package</p> <p>In-charge Faculty: Prof. V K Havnur</p>			
	MoUs	<p>Activity-1: Contacting industries/organizations for possible MOUs.</p> <p>Outcome/Target: 1. Better industrial exposure and internships for students</p> <p>In-charge Faculty: Prof. S. G. Bindagi</p>	Nil		Nearby industries are contacted for possible MoUs
	Internship	<p>Activity-1: Identifying industries offering free internship.</p> <p>Outcome/Target: 1. internship for all students.</p> <p>In-charge Faculty: Prof. V. R. Shivannavar</p>	Letters have been issued for carrying out internship to all students at various industries. Students are undergoing internship.	--	--

Focus	Year 2022				
	Perspective	Perspective/ Key Areas	Observations / Remarks by Auditors		
			Outcomes achieved [4]	Reasons for any deviation [5]	Further action plan, if applicable [6]
F7 Accreditation and Ranking	NBA Faculty I/C: NBA Coordinator	Activity-1: Extension for continuation of accreditation will be applied. Outcome/Target: 1. NBA accreditation for the department 2. In-charge Faculty: Prof. S. R. Daboji	Department has been accredited for three years 2022- 2025	--	
	NAAC Faculty I/C: NAAC Coordinator	Activity-1: Department preparations for NAAC accreditation will be done as per institutional guidelines. Outcome/Target: 1. Documentation for NAAC accreditation. In-charge Faculty: Dr. Anilkumar H C	Data pertaining to section 1, 2 and 3 of NAAC have been submitted	--	--
	NIRF ranking. Faculty I/C: PG Coordinator	Activity-1: Department preparations for better NIRF ranking will be done as per institutional guidelines Outcome/Target: 1. Improved NIRF ranking	--	--	---

		In-charge Faculty: Dr. P S Shivakumar gouda Prof. Shivaprasad B L			
--	--	---	--	--	--

Remarks- by the auditing team.

The progress report mentioned above is presented by the concerned department team, verified for its correctness by the auditing team and approved by the concerned authorities mentioned below.

1 Quarter	Name and Signature with Date of the concerned authority							
	DUGC Member Secretary	IQAC Coordinator	Faculty I/C of Strategic Plan	Head of the Department	Member-3 Audit Team	Member-2 Audit Team	Member-1 Audit Team	PRINCIPAL